

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Valley Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS
Significant Permit Modification

MillerCoors, LLC
Rockingham County, Virginia
Permit No. VRO81012
Effective Date: September 20, 2010
Expiration Date: September 19, 2015

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, MillerCoors, L.L.C. has applied for a significant modification to the Title V Operating Permit for its brewery in Rockingham County, Virginia. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact: Debbie D. Medlin Date: 5/13/14
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Air Permit Manager: Janardan R. Pandey, P.E. Date: 5/14/14
Janardan R. Pandey, P.E.

REQUESTED MODIFICATION

On June 6, 2013, the Valley Regional Office received a request from MillerCoors, L.L.C., dated June 3, 2013, for a significant permit modification to the MillerCoors, L.L.C. Title V operating permit. The significant permit modification requests the incorporation of the conditions from the existing New Source Review (NSR) permit, issued on June 10, 2011, as amended on November 18, 2013, to modify and operate the brewery and packaging facility in Elkton, Virginia.

REASON FOR MODIFICATION

MillerCoors, L.L.C. has requested a significant modification to the current Title V operating permit, with an effective date of September 20, 2010 and an expiration date of September 19, 2015. This modification will include the incorporation of the NSR permit to modify and operate a brewery and packaging facility in Elkton, Virginia. The Title V permit is amended to include the applicable requirements from the NSR permit for a combined heat and power (CHP) spark ignition internal combustion engine (SI ICE) generator set, as well as the federal New Source Performance Standards (NSPS) 40 CFR 60, Subpart JJJJ, and the Maximum Achievable Control Technology (MACT) standards 40 CFR 63, Subpart ZZZZ, applicable to the same.

The Jenbacher engine generator set (Unit ID CHP-1) is subject to 40 CFR 63 Subpart ZZZZ - *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* and to 40 CFR 60 Subpart JJJJ - *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*. The applicable requirements from these rules are being incorporated into the Title V permit with this action. MACT, Subpart ZZZZ compliance for this engine requires compliance with NSPS, Subpart JJJJ.

The NSR permit and the related NSR permit engineer memorandum, excluding memorandum attachments, are included as Attachments A and B. Attachment C is a document from the Unit CHP-1 manufacturer, General Electric Jenbacher (GEJ), indicating the engine's emission factors. The manufacturer indicates that the engine is a non-certified engine. Changes and additions made to the NSR permit are detailed in the associated memorandum. The Title V permit is being modified to incorporate these changes.

Permit changes also include a compliance change from a current compliance demonstration with calculation of air emissions every four-week period as the sum of 13 consecutive four-week periods, to a monthly demonstration by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. This is done in order to make the permit practically enforceable.

The CO₂ recovery system emission factor was decreased from 3.27 lb/hr VOC to 0.0304 lb/hr VOC, based on stack testing data from similarly-sized MillerCoors breweries. The resulting annual emissions rate from the CO₂ recovery system will, therefore, decrease from 7.61 tpy to 0.133 tpy.

Requirements for the two existing digester (biogas)-fired boilers (Units 34 and 35) were also added.

APPLICABILITY OF 9 VAC 5-80-230

According to 9 VAC 5-80-230, significant modification procedures must be used for those permit modifications that do not qualify as minor permit modifications under 9 VAC 5-80-210 or as administrative amendments under 9 VAC 5-80-200. The modification proposal to the MillerCoors, LLC Title V operating permit does not meet the specifications for an administrative amendment or a minor permit modification. The Regulations further list criteria, any of which, if met, require use of significant modification procedures. The changes proposed by MillerCoors, L.L.C. meet the following criterion, as stated in 9 VAC 5-80-230.A.1:

Significant modification procedures shall be used for those permit modifications that involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit...

The MillerCoors Title V permit modification requires the establishment of emission limitations, standards, and monitoring through the incorporation of the new applicable requirements in the NSR permit dated June 10, 2011, as amended on November 18, 2013. Since the changes proposed by MillerCoors meet at least one criterion listed in 9 VAC 5-80-230 and do not qualify as an administrative amendment or minor permit modification, the changes must be processed as a significant permit modification.

CHANGES TO TITLE V OPERATING PERMIT

The changes made to the Title V permit are described below, and include the requirements from the NSR permit. The condition numbers refer to the draft Title V permit. Alphanumeric numbers refer to Conditions, proposed for modification, as numbered within the current Title V permit. Numeric numbering refers to new Conditions proposed for the Title V permit, using the agency's new Title V permit numbering system.

Facility-Wide Changes:

Monitoring:

The manner by which the annual throughput, production or emission limitations are calculated are changed to a monthly calculation/compilation, instead of an "every four-week period as that sum of each 13 times per year demonstration".

Facility Information: No change.

Facility Description: The SI ICE (Unit ID CHP-1) was added to the facility description.

Equipment Unit and Control Device Identification Changes:

A new equipment ID, description, and rated capacity was added for the CHP SI ICE, the biogas flare, and the two biogas-fired boilers, rated at 3.954 Million Btu/hr (Unit ID 34) and 8.37 Million Btu/hr (Unit ID 35). Permit dates were also added. NSR permit date was changed from "6/10/11 Permit" to "06/10/11 Permit, as amended 11/18/13".

Fuel Burning Equipment: No changes to Limitations or Monitoring except as noted in Facility-Wide Conditions.

Brewery Requirements:

Limitations: Condition IV.A.7. – Change (decrease) emission limits for the CO₂ Recovery System (Unit ID 38)

Monitoring: No changes to monitoring except as noted in Facility-Wide Conditions.

Packaging Requirements: No changes to Limitations or Monitoring except as noted in Facility-Wide Conditions.

Recordkeeping:

Condition 54.n. – Condition added to require records of low VOC lubricant evaluations.

Condition 54.o. – Condition added to require records of ink and makeup cleaner evaluations.

Wastewater Treatment Requirements

Limitations:

Condition 57 – Added requirement for NO_x emissions from Unit CHP-1 to be controlled by a low NO_x emission engine.

Condition 58 – Added requirement for proper operation and maintenance for Unit CHP-1.

Condition 59 – Condition added to require device on Unit CHP-1 to continuously measure and record the biogas flow.

Condition 62 – Added engine emissions for Unit ID CHP-1.

Condition 67 – Add opacity limits for the Unit ID CHP-1.

Condition 68 – Add a continuing compliance provision for the Unit ID CHP-1 opacity requirements.

Condition VI.A.3 (modified; Condition 70) – Added Unit ID CHP-1 to equipment that is affected by the VOC emission limit in Condition VI.A.4. (Condition 71).

40 CFR 60, Subpart JJJJ Requirements: The following conditions are established for the SI ICE (Unit ID CHP-1) in accordance with the NSPS, Subpart JJJJ. Condition numbers in this part refer to the Title V permit.

Condition 60 (added) – Added NSPS (Subpart JJJJ) emission standards for Unit ID CHP-1.

Condition 61 (added) – Added requirement to operate and maintain the engine in such as way that achieves NSPS (Subpart JJJJ) emission standards for Unit ID CHP-1.

Condition 64 (added) – Added engine compliance reference from 40 CFR 60 (Subpart JJJJ)

Condition 66 (added) – Add Subpart JJJJ compliance requirements for a non-certified engine, including a maintenance plan, records of conducted maintenance, and compliance with the emission standards as required by Subpart JJJJ.

40 CFR 63 Subpart ZZZZ Requirements

Condition 63 (added) – Added engine compliance reference from 40 CFR 63 (Subpart ZZZZ)

Condition 65 (added) – The Unit ID CHP-1 shall meet the requirements of MACT Subpart ZZZZ by meeting the requirements of NSPS Subpart JJJJ.

Monitoring, Recordkeeping, and Testing:

Monitoring and recordkeeping Conditions have been established to determine compliance with the limitations established for the Unit ID CHP-1, per NSPS Subpart JJJJ, in the Wastewater Treatment Requirements section of the Title V permit. As shown below, compliance is indicated in the modified TV permit, with Conditions for recordkeeping demonstrating compliance with the fuel type, records of engine maintenance performed, records that indicate that the Unit ID CHP-1 is a non-certified engine, and records that show the engine emissions comply with the process emission standards of the governing Subpart JJJJ. These records satisfy the Part 70 periodic monitoring requirements to ensure that the permit requires compliance with the applicable requirements.

Compliance assurance for the engine Unit ID CHP-1 requires an initial performance (stack) test for VOC, NO_x, and CO while firing digester gas (biogas). Subsequent performance testing must take place within three years of the initial performance tests or every 8,760 hours of operation of the Unit CHP-1, whichever comes first. This testing will assure engine compliance with the engine emission standards as listed in Subpart JJJJ.

Monitoring:

Compliance monitoring requirements for the digester gas-fired boilers, Unit ID 34 (3.954 Million Btu/hr), and Unit ID 35 (8.37 Million Btu/hr), by recordkeeping of the throughput. No other recordkeeping is required due to the small size of the units.

No other changes are made to the monitoring conditions except as indicated for the Facility-Wide Conditions in how compliance is determined.

Recordkeeping:

Added: 80.f. Monthly and annual throughput of digester gas for the Unit ID 34, the 3.954 MMBtu/hr boiler.

80.h. Monthly and annual throughput of digester gas for the Unit ID CHP-1.

80.j. Records of stack testing results for Unit CHP-1

80.k Records to show compliance with the process emission limits for Unit ID CHP-1.

80.l. All notifications submitted to comply with 40 CFR 60 Subpart JJJJ and all documentation supporting any notification.

80.m. Maintenance conducted on the engine (Unit ID CHP-1).

80.n. Documentation that the Unit ID CHP-1 meets the emission standards if it is a non-certified engine.

Testing:

Condition 68 – Add a continuing compliance provision for the Unit ID CHP-1 opacity requirements.

Subpart JJJJ

Condition 81 (added) – Initial performance testing requirement for the Unit ID CHP-1.

Condition 82 (added) – Continued compliance testing requirement, every three years, for the Unit ID CHP-1.

Condition 83 (added) – Specific testing procedures/requirements for the performance tests on Unit ID CHP-1, as required in Conditions 81 and 82.

Reporting: (Subpart JJJJ)

Condition 85 (added): Initial notification requirement for Unit ID CHP-1 as a non-certified engine.

Facility Wide Conditions: No change.

Insignificant Emission Units: No change.

Permit Shield & Inapplicable Requirements: No change.

General Conditions:

Condition X.U.1 (Cond. 122) and X.U.2 (Cond. 123); modified – Malfunction as an Affirmative Defense – reference to “paragraph 2” changed to reference Condition (X.U.2) immediately following.

INAPPLICABLE PERMIT REQUIREMENTS

Compliance Assurance Monitoring (CAM), 40 CFR 64, is not applicable to the Jenbacher engine generator set Unit CHP-1. The engine is subject to NSPS, Subpart JJJJ. This regulation was promulgated after November 15, 1990. Thus, this source is exempt from CAM applicability.

The provisions of 40 CFR Part 98 – Mandatory Greenhouse Gas Reporting require owners and operators of general stationary fuel combustion sources that emit 25,000 metric tons CO₂e or more per year in combined emissions from such units, to report greenhouse gas (GHG) emissions, annually. The definition of “applicable requirement” in 40 CFR 70.2 and 71.2 does not include requirements such as those included in Part 98, promulgated under Clean Air Act (CAA) section 114(a)(1) and 208. Therefore, the requirements of 40 CFR Part 98 are not applicable under the Title V permitting program.

As a result of several EPA actions regarding GHG under the CAA, emissions of GHG must be addressed for Title V permit actions after January 1, 2011. The current NSR permit for this facility contains no GHG-specific applicable requirements and there have been no modifications at the facility requiring a PSD permit. Therefore, there are no applicable requirements for the facility specific to GHG.

PUBLIC PARTICIPATION

The public participation requirements of 9 VAC 5-80-270 apply to significant permit modifications. A public notice regarding the draft permit was placed in the *Daily News-Record* on March 28, 2014 and comments were accepted for 30 days. No comments were received.

The EPA was sent a copy of the draft permit and notified of the public notice on March 27, 2014. West Virginia is the state potentially affected by this action. As such, a copy of the public notice was e-mailed to the WVDEP on March 27, 2014. All persons on the Title V mailing list were also e-mailed a copy of the public notice on March 27, 2014.

ATTACHMENTS

Attachment A – Minor NSR Permit dated June 10, 2011, as amended November 18, 2013.

Attachment B – Engineering Memorandum for Minor NSR Permit dated June 11, 2010 as amended November 18, 2013

Attachment C – GEJ Letter dated January 6, 2014 (and received by DEQ on January 30, 2014) regarding Jenbacher Gas Engine Emission Factors

ATTACHMENT A

Minor NSR Permit dated June 10, 2011, as amended November 18, 2013

ATTACHMENT B

**Engineering Memorandum for Minor NSR Permit dated June 10, 2011, as amended
November 18, 2013**

ATTACHMENT C

**GEJ Letter dated January 6, 2014 (and Received by DEQ on January 30, 2014)
Regarding Jenbacher Gas Engine Emission Factors**